

REMARKS

Reconsideration of the application, as amended, is respectfully requested.

I. STATUS OF CLAIMS

Claims 1, 4, 5, 7, 8-13, 22, 23, 26, 27 and 29 are pending in this application. Claims 1, 4, 5, 7, 8-13, 22, 23, 26, 27 and 29 have been canceled herewith without prejudice. New claims 30-39 have been added.

Support for the new claims may be found throughout the specification as originally filed. No new matter has been added by virtue of this amendment.

II. 35 U.S.C. 103(a) REJECTIONS

(i) Claims 1, 3, 4, 5, 8, 11, 12, 13, 22, 23, 26-27 and 29 have been rejected under 35 U.S.C. 103(a) as being unpatentable over by U.S. Patent No. 6,927,410 to Chen ("the Chen patent") in view of U.S. Patent No. 6,943,365 to Lowrey et al ("the Lowrey patent"), U.S. Patent Application Publication No. 2003/0212724 to Ovshinsky et al. ("the Ovshinsky publication") and Hun Seo et al publication, entitled "Investigation of Crystallization Behavior of Sputter-Deposited Nitrogen-Doped Amorphous Ge₂Sb₂Te₅ Thin films; Jpn. J. Appl. Phys. Vol.39 (2000) 745-751; Part 1, No. 2B, 28 February 2000 ("the Hun Seo publication").

(ii) Claims 6, 9 and 10 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, Lowrey, Ovshinsky and Hun Seo as applied to claims 1, 4, 5, 11, 12, 13, 22, 23, 26-27 and 29 above, and further in view of U.S. Patent No. 5,536,947 to Klersy et al. ("the Klersy patent").

In response, it is submitted that Chen, Lowrey, Seo, Klersy and Ovshinsky alone or in combination fail to teach or suggest all of the features recited in new claims 30 and 38.

In particular, Chen, Lowrey, Seo, Klersy and Ovshinsky at the very least are each silent regarding a multi-bit phase change memory cell, which includes a plurality of conductive layers including a plurality of intermediate conductive layers disposed between the first and second outer conductive layers, each of the intermediate conductive layers having the same dimensions as an adjacent phase change material layer, wherein the plurality of conductive layers are made of at least one of Cu and Pt and wherein each of the plurality of conductive layers are made of the same material as one another, as required by new claim 30. In addition, Chen, Lowrey, Seo, Klersy and Ovshinsky at the very least are each silent regarding a multi-bit phase change memory, which includes a plurality of conductive layers including a plurality of intermediate conductive layers disposed between the first and second outer conductive layers, each of the intermediate conductive layers having the same dimensions as an adjacent phase change material layer, wherein the plurality of conductive layers are made of at least one of Cu and Pt and wherein at least one of the plurality of conductive layers is made of a different material from another of the plurality of conductive layers, as required by new claim 38. In contrast, none of the conductive layers described in any of the above-mentioned cited references includes all of the above-mentioned features of the conductive layers recited in new claims 30 and 38.

Therefore, for at least the reasons set forth above, new claims 30 and 38 are patentable over the cited art of Chen, Lowrey, Seo, Klersy and Ovshinsky. As claims 31-37 depend from new claim 30 and claim 39 depends from new claim 38, these new dependent claims are likewise patentable over the cited art of Chen, Lowrey, Seo, Klersy and Ovshinsky for at least the reasons set forth above with regard to new claims 30 and 38, respectively.

III. CONCLUSION:

In summary, applicants respectfully submit that the instant application is in condition for allowance. Early notice to that end is earnestly solicited.

If a telephone conference would be of assistance in furthering prosecution of the subject application, applicant requests that the undersigned be contacted at the number below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Scott L. Appelbaum", written over a horizontal line.

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